







# In-Use On Road Diesel Vehicle Regulation

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In-Use Control Measures Section

**California Environmental Protection Agency** 



#### **Need for Emissions Reductions**

- Attain health based 8-hour ozone and PM2.5 standards
  - Federal Clean Air Act
  - State Implementation Plan (SIP)
- Diesel particulate matter contributes to premature death, cancer and other adverse respiratory health impacts
- Mobile diesel engines are the largest source of diesel particulate matter (PM) and oxides of nitrogen (NOx) in California



## **Applicability**

- Diesel vehicles operating in California
  - Trucks, buses, yard trucks and other
  - Interstate, intrastate, international, and other
- Vehicles greater than 14,000 GVWR and shuttle buses
- Any person, business, or government agency who owns, leases, rents, or sells a vehicle in California
- Excludes emergency vehicles, military tactical vehicles, and personal use motorhomes

## Overview of Regulation

- Install PM controls from 2011-2014
- 2010 model year engines from 2013-2023
  - Exhaust retrofits if equivalent emissions
- Three compliance options
  - Best available control technology (BACT) schedule, or
  - Replacement and retrofit limits, or
  - Fleet average
- Special provisions, credits



## Option 1 - BACT Schedule No Reporting Required

Engine Model Year	Requirement		
Pre-1994	PM control		
2003-2004	PM control		
2005-2006	PM control		
1994-1999	Replace		
2000-2002	Replace		
Pre-1994	Replace		
2003-2004	Replace		
2005-2006	Replace		
No new requirements			
		2007	Replace
		2008	Replace
2009	Replace		
	Pre-1994 2003-2004 2005-2006 1994-1999 2000-2002 Pre-1994 2003-2004 2005-2006  No new req 2007 2008		



<sup>\*</sup> PM control required for all vehicles

#### Option 2 - BACT Percentage Limits

#### PM control

- Highest level PM retrofit
- Originally equipped PM filter
- Replacement
  - 2010 model year engine
  - 2004-2006 with 85% NOx reduction
  - 2007-2009 engine with 70%NOx reduction
- Requires reporting

January 1st	PM Control	Replacement*
2011	25%	NA
2012	50%	NA
2013	75%	25%
2014	100%	50%
2015	"	50%
2016	"	60%
2017	"	80%
2018	"	80%
2019	"	80%
2020	"	90%
2021	"	90%
2022	"	90%
2023	66	100%

<sup>\*</sup> Motor coaches have less stringent schedule

## Option 3 – Fleet Average

- Can be met by any combination
  - Widest variety of engine model years
  - Widest variety of NOx control options
- Emissions factors specified in regulation
- Fleet emissions targets decline
- Requires reporting



## **Special Provisions Summary**

- Small fleets
- Agricultural vehicles
- Retirement credits
- Early PM retrofit credits
- Lower usage
- Attainment area operation
- Unique vehicles
- PM retrofit safety

- Manufacturer delays
- Certain cab-over engine truck tractors
- Hybrid and alternative fueled vehicles credits
- Three day pass
- School buses
- Motor coaches
- Two engine sweepers

#### **Small Fleets**

- Three 3 vehicles or less
- No clean-up requirements before 2014
- All must have PM control\*
- One 2004-2006 MY engine good until 2019
- 2010 engine in fleet delays action for other truck
  - Two trucks; delays replacement of 2<sup>nd</sup> until 2017
  - Three trucks; delays clean-up of 3<sup>rd</sup> until 2016
- Reporting starts in 2011



<sup>\*</sup> Exception for three vehicle fleet with a 2010 engine.

#### Low Mileage NOx Provisions

- Truck tractors and vehicles with GVWR over 33,000 lbs. operated less than 7,500 miles\*
- Smaller vehicles operated less than 5,000 miles\*
- PM filters 2011-2014
- No replacements until 2021
  - 2010 engines 2021-2023
- Subject to reporting requirements

<sup>\*</sup> Hours limitation applies for yard goats and vehicles using PTO to perform work while stationary.

## Special Provisions (Continued)

- Any vehicle operated exclusively in attainment areas
- PM filters 2011-2014
- No replacements until 2021
  - 2010 engines 2021-2023
- No mileage limits
- GPS tracking
- Reporting required



Attainment Area Counties - Alpine, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Monterey, Plumas, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Trinity, Tehama, and Yuba

## Agricultural Vehicles

- Used exclusively in agricultural operations
- Exempt below mileage thresholds
  - 15,000/20,000/25,000 annual miles until 2017
  - 10,000 annual miles until 2023
- Specialty farm vehicles exempt until 2023
- All trucks cleaned up by 2023
- Reporting required January 2010





#### **School Buses**

- PM requirements 2011-2014
  - Pre-1977 bus replacements
- Different BACT compliance schedule
- Same flexibility provisions
- \$200 million in Lower-Emission School Bus Program funding



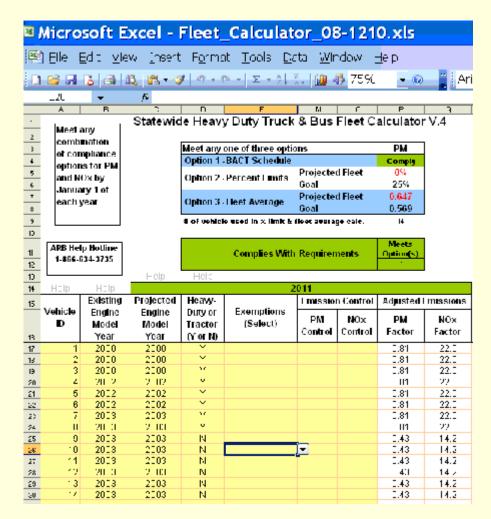


### Reporting and Disclosure

- Initial reporting required by January 31, 2011 and each subsequent compliance year thereafter.
- Early Reporting Required for vehicles claiming Agricultural and retirement credits exemptions by January 2010.
- No reporting for BACT compliance schedule
- Dispatcher required to ensure vehicle meets regulatory requirements
- Requirement for regulation disclosure on bill of sale
- Leased Fleet Requirement can exclude vehicle from leasing entity fleet if lease duration is 1 year or more and responsibility for compliance written into contract

#### Calculator

 Excel spreadsheet available to assist fleet owners in determining potential compliance paths.



#### **Truck and Bus Regulation Contacts**

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Statewide Truck and Bus Regulation - <a href="https://www.arb.ca.gov/dieseltruck">www.arb.ca.gov/dieseltruck</a>